

Climate and Weather Highlights for 2021

Temperatures averaged slightly above normal for the year at Abilene and slightly below normal at San Angelo. Precipitation for the year was below normal at Abilene and above normal at San Angelo. Table 1 summarizes Year 2021 temperature, precipitation, and departure from normal for Abilene and San Angelo.

Site	Average Temperature (°F)	Departure from Normal (°F)	Normal Average Temperature (°F)	Total Precipitation (In.)	Departure from Normal (In)	Normal Annual Precipitation (In.)	Total Snowfall (In.)
Abilene	66.0°	+0.1°	65.9°	24.43"	-0.81"	25.24"	15.4"
San Angelo66	66.4°	-0.3°	66.7°	23.23"	2.30"	20.93"	13.9"

Table 1: Year 2020 Temperature and Precipitation Data for Abilene and San Angelo.

- Annual snowfall for 2021 was the 3rd highest on record at San Angelo (13.9 inches) and 5th highest on record at Abilene (15.4 inches).

Additional annual temperature and precipitation data, for Abilene and San Angelo, is summarized in Table 2.

Site	Warmest High Temperature (°F)	Warmest Low Temperature (°F)	Coldest High Temperature (°F)	Coldest Low Temperature (°F)	Maximum Daily Precipitation (In.)
Abilene	104° Sep. 20	78° Jul. 28	13° Feb. 15	-4° Feb. 16	3.56" on May 31
San Angelo	103° June 20	77° on June 25-26	18° Feb. 15	-1° Feb 15-16	2.62" on Aug. 17

Table 2: Additional Year 2021 Climate Data for Abilene and San Angelo.

The number of days in 2021 with high temperatures 100 degrees or more were 15 at San Angelo and 8 at Abilene. The *average annual number of days* with high temperatures 100 degrees or more are 18 at San Angelo, and 12 at Abilene.

The growing season information for the year is summarized in Table 2, for Abilene and San Angelo.

Site	Last Spring Freeze	First Autumn Freeze	Length of Growing Season	Normal Length of Growing Season (1991-2020 Average)	Departure from Normal
Abilene	Apr. 21	Nov. 22	214 days	234 days	-20 Days
San Angelo	Apr. 1	Nov. 13	225 days	230 days	-5 Days

Table 3: Growing Season Information for Abilene and San Angelo.

The growing season (number of days between the last spring freeze and the first autumn freeze) was 20 days shorter than normal at Abilene, and 5 days shorter than normal at San Angelo.

Total precipitation for the year is shown in Figure 1.

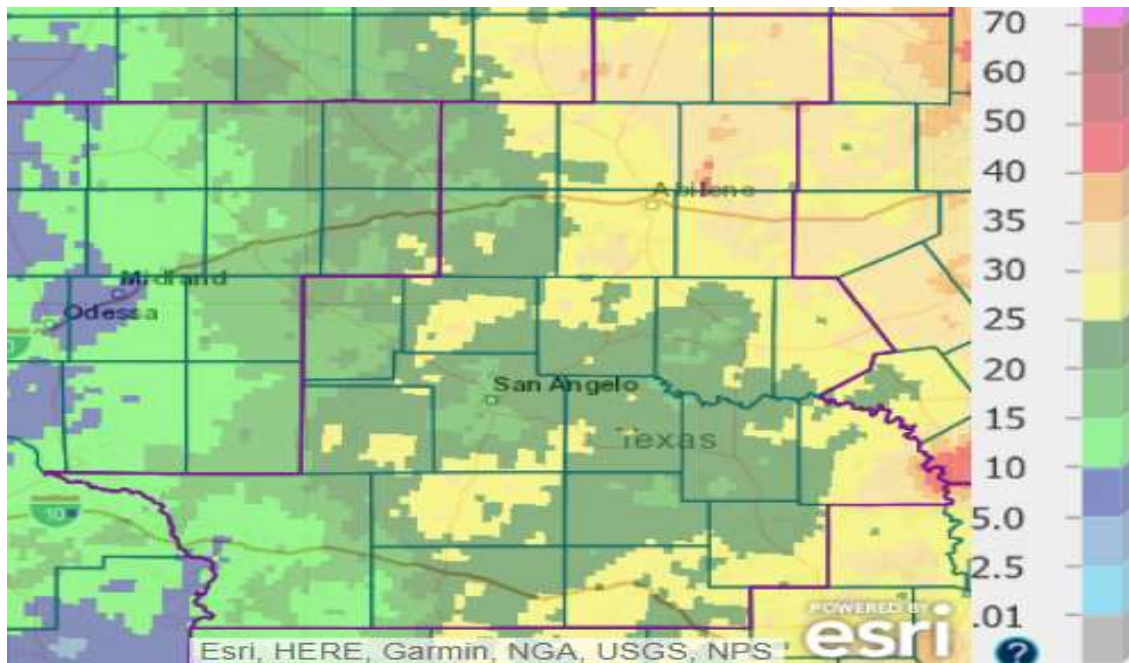


Figure 1: Total Annual Precipitation for Year 2020. Scale on right is in inches.

Percentage of normal precipitation for the year is shown in Figure 2.

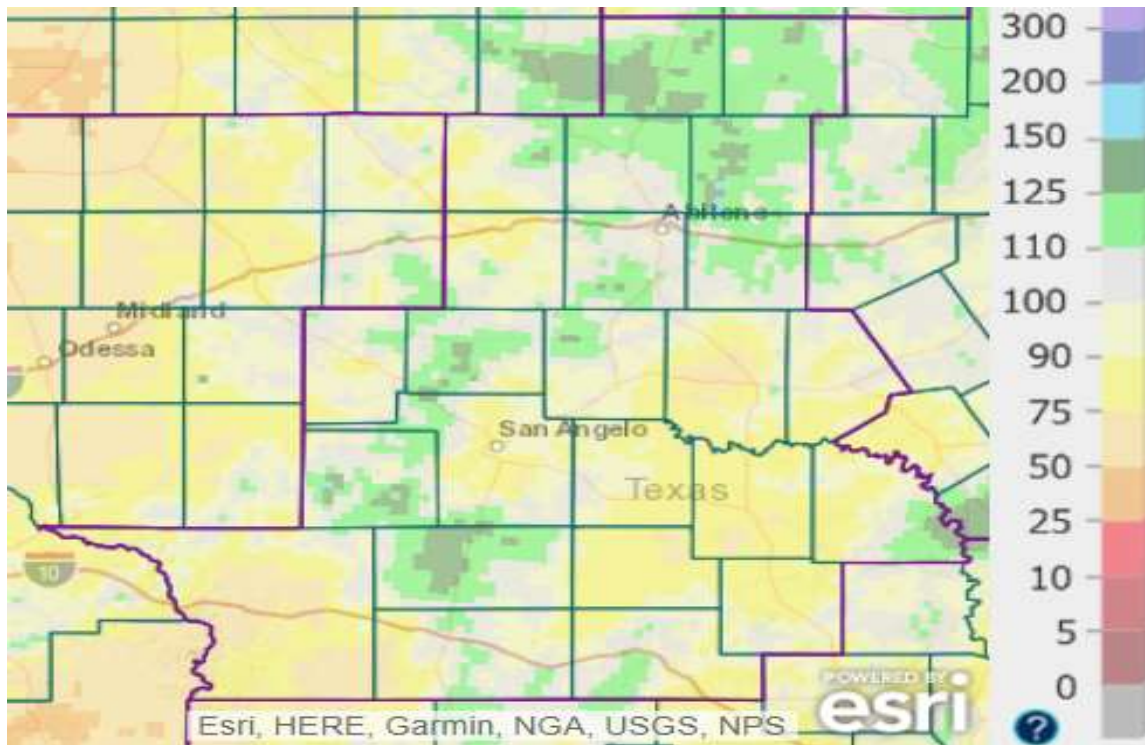


Figure 2: Percentage of Normal Precipitation for Year 2020. Scale on right is in percent.

In Figure 1, annual precipitation ranged from more than 35 inches at a few locations in the Big Country and far southeastern San Saba County (orange shading), to less than 15 inches in some of Crockett County (light green shading). The annual precipitation was above average (green shading in Figure 2) across some of the Big Country, Concho Valley, Northern Edwards Plateau and in southeastern San Saba County). Annual precipitation was below normal (yellow and tan shading in Figure 2) in some of the central, eastern and southern parts of west-central Texas, and in parts of the western Big Country.

Weather Highlights:

Winter Weather

The overwhelmingly dominant event of the winter season was the record cold and snowfall in February. A historic and record-breaking arctic outbreak invaded west-central Texas in the second week of February, bringing with it the coldest temperatures the region had experienced since 1989. Several days of freezing rain and drizzle across the area culminated in a record-breaking snowfall on Valentine’s Day. Both San Angelo (10.1 inches) and Abilene (9.8 inches) set their all-time daily snowfall records. In addition, temperatures across west-central Texas plunged into the single digits above and below zero, for lows on the mornings of February 15 and 16. This shattered several temperature records. Another new record was set, for the

number of consecutive days and hours with temperatures at or below freezing, at Abilene (252 hours) and San Angelo (152 hours).

The record cold and snowfall resulted in major impacts to the area. With a combination of the major winter storm and record cold temperatures in the middle of February, power outages were widespread across the area and across the state of Texas. There was considerable damage with frozen and burst water pipes. The city of Abilene experienced a loss of water, as a result of power loss to water treatment plants. In San Angelo, numerous breaks to water lines resulted in the loss of water for several days, in much of the city.

[Detailed Look at the West Central Texas Historic Arctic Outbreak in February, 2021](#)

A couple winter weather events occurred earlier in the winter season, on Dec. 31 and Jan. 10. On Dec. 31, an upper level storm system approached south-central Texas from northeastern Mexico. A cold rain changed to a mix of freezing rain, sleet, and snow. Ice accumulated mainly on elevated objects (trees and power lines) across central and eastern parts of west-central Texas. This caused power outages in Coleman County. The transition to snow occurred, from west to east across the area, on Dec. 31. Most of West Central Texas received anywhere from 2 to 5 inches of snow. The highest snowfall amounts (6-9 inches) occurred in Sterling and Irion Counties. A map with snowfall amounts is shown in a [Facebook post](#) from our weather office.

A winter weather event with heavy snowfall across most of the northern and central parts of West Central Texas (including Abilene, San Angelo, and Brownwood) on Jan. 10, with the approach and arrival of an upper level storm system from southeastern New Mexico. The heaviest snowfall of 5 to 8 inches occurred in the Big Country and Heartland areas. The Concho Valley received 3 to 5 inches of snowfall.

Temperatures in January averaged near to slightly above normal at San Angelo and Abilene. Precipitation was above normal at both locations. The monthly average temperature in February was the coldest on record (42.6 degrees) at San Angelo, and 6th coldest on record (40.1 degrees) at Abilene.

Spring & Severe Weather

Spring is typically active with severe weather in west-central Texas, and a number of severe weather events occurred in 2021.

In March, temperatures averaged above normal, while precipitation was below normal for much of west-central Texas. With thunderstorms on Mar. 13, a peak wind gust of 63 mph was recorded at the San Angelo Airport. Strong to severe thunderstorms and blowing dust occurred on Mar. 17. With thunderstorms during the post-Midnight hours, the Brownwood Airport recorded a peak wind gust of 63 mph, while a 56 mph wind gust was recorded at the Abilene Airport. After passage of a Pacific cold front, strong, gusty west-northwest winds occurred, giving Abilene another 56 mph wind gust. With the strong winds, A [pronounced plume of blowing dust](#) was transported southeast across much of the area along and south of Interstate 20. Visibilities in this dust were reduced to 1-3 miles at times.

In April, temperatures averaged below normal. Precipitation varied from well-above normal across the Big Country and northern Heartland areas, to well-below normal for some of the southern sections of west-central Texas. A new record for the latest freeze in the spring season set at Abilene, on Apr. 21.

Several severe weather events occurred in the middle to late parts of April.

[Large to Very Large Hail in the Heartland on Apr. 12](#)

[Severe Storms with Large Hail on Apr. 15](#)

[Severe Weather Northern and Central Parts of the Area on Apr. 28](#)

Between 5 AM and 7 AM on Apr. 28, a cluster of thunderstorms with very heavy rain caused flash flooding of streets in Abilene. In addition, water overflowed a creek just west-southwest of Abilene. A new daily rainfall record for Apr. 28 (3.29 inches) was set at Abilene.

May was active with numerous severe weather events and heavy rainfall. Temperatures in May averaged below normal. Abilene recorded its 8th wettest May, while precipitation was well-below normal in San Angelo.

A severe weather event occurred May 10 with large and very large hail across southeastern parts of the area. This occurred with left-moving storms (from storm splits). The largest hail reported was baseball to softball size 10 miles northeast of Cleo (Kimble County). Other reports in Kimble County included golfball to baseball size hail. Hail up to golfball size was reported in Mcculloch and southern Brown Counties. In Sutton County, hail larger than hen egg size was

reported (18 miles east-southeast of Sonora). In all, a total of 15 severe weather reports were received for this event.

[Severe Weather Reports May 10](#)

Tornado in Sterling County May 17:

With a severe weather event on the evening and early nighttime hours of May 17, a tornado occurred in northern Sterling County. This tornado, which was rated EF-2 on the Enhanced Fujita Scale, caused damage to a gas plant, along with some other structures. Hail up to baseball size was reported with the tornadic storm in northern Sterling County (12 miles north of Sterling City).

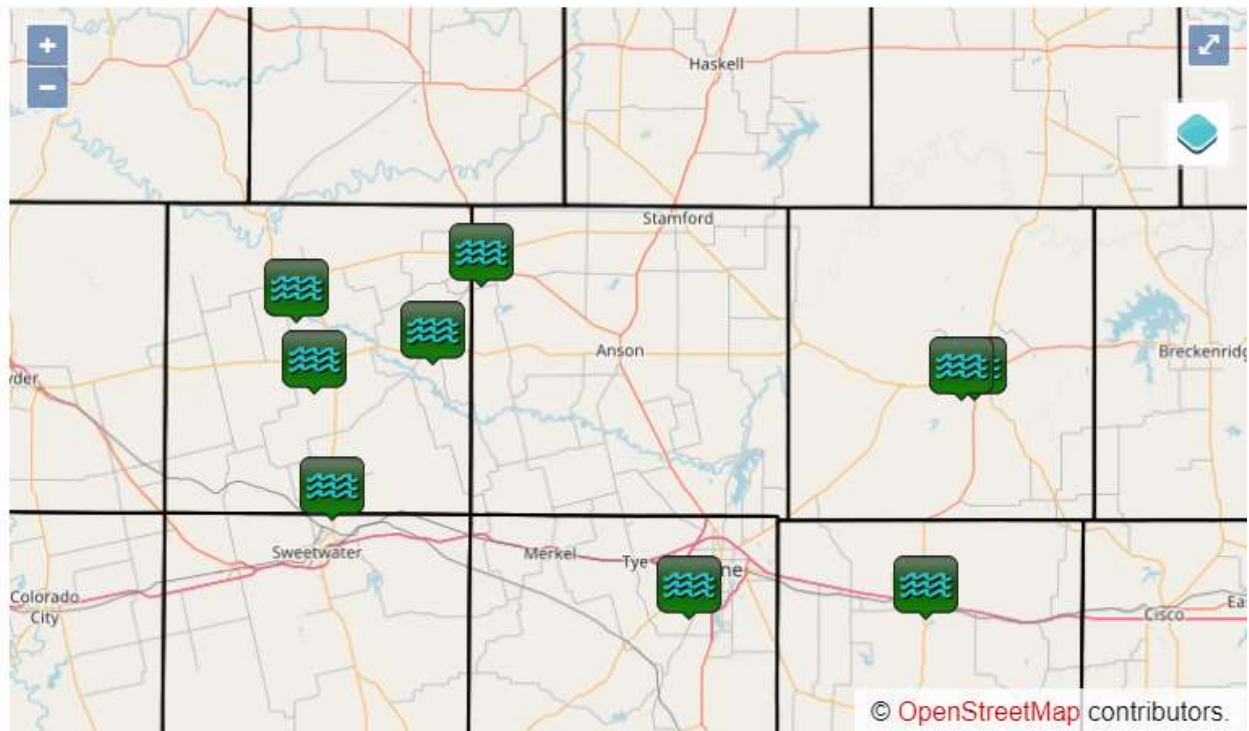
[Damage Survey for Sterling County Tornado](#)

Flash Flooding in the Big Country May 31:

Flash flooding of numerous roads occurred in the Big Country on May 31. This was the result of repeated rounds of showers and thunderstorms with heavy rain, on ground which had become saturated.

[Big Country Flash Flooding reports](#)

Map below with flash flooding reports.



Summer Weather

The summer season as a whole (June through August) was the second wettest on record at San Angelo, with 13.85 inches. This was surpassed only by summer season rainfall of 13.93 inches in 2007.

Temperatures in June averaged slightly below normal. San Angelo recorded its 7th wettest June. Precipitation across west-central Texas varied from well-above to well-below normal. Some of the hotter temperatures for the month occurred June 10-13, when an upper level high pressure system was in close proximity to the area.

The late part of June through the middle of July was marked by an unsettled pattern, with several episodes of scattered to numerous showers and thunderstorms with locally heavy rainfall. In July, temperatures averaged below normal and precipitation was above normal across much of west-central Texas. San Angelo recorded its 8th wettest July. Conditions more typical for July (hotter and drier) occurred late in the month.

August was another wet month for San Angelo (9th wettest August on record). Temperatures averaged below normal at San Angelo and slightly below normal at Abilene. A period of unsettled weather occurred Aug. 15 and 17, most notably at San Angelo.

Storms in San Angelo on August 15 and August 17:

A cluster of thunderstorms with frequent lightning affected San Angelo on the early morning of August 15. Lightning strikes resulted in power outages to some parts of the city, and a hotel was struck by lightning. Very heavy rainfall (1.5 to 3 inches) caused street flooding. Two days later on August 17, a slow-moving area of showers and thunderstorms with very heavy rain caused flash flooding of streets in San Angelo. Water runoff from the heavy rainfall August 15 and 17 led to minor water level increases in a couple of reservoirs around San Angelo.

[Flash Flooding Reports](#)

[Flash Flooding Reports August 17](#)

Fall Weather

In September, temperatures averaged above normal at Abilene and slightly above normal at San Angelo. Rainfall was well-above normal across southeastern parts of the area, where rainfall amounts for the month were 4-7 inches. September rainfall was generally well-below normal in much of the Big Country and Concho Valley into the northern Heartland, and in northwestern Crockett County. In what is one of the wettest months on average, San Angelo received only 0.39 inches. The first notable cold frontal passage of the Fall season was on Sep. 21. On September 30, very heavy rainfall caused flash flooding of streets in Abilene, resulting in several water rescues. A home in Abilene was also flooded. The Abilene Regional Airport recorded 2.18 inches of rainfall.

[Flash Flooding Report in Abilene](#)

In October, temperatures averaged above normal at Abilene and San Angelo. October rainfall was well-above normal in parts of the Concho Valley and northern Heartland, and mostly below normal for the rest of west-central Texas. October is also one of the wettest months on average, but the monthly rainfall at Abilene was just over 50 percent of normal. Very cool morning low temperatures (in the upper 30s to lower 40s across the area) on Oct. 16-17 were followed by record heat late in the month on Oct. 25 (highs 95 degrees at San Angelo and 92 degrees at Abilene).

In November, temperatures averaged above normal at Abilene and San Angelo. Precipitation was well-below normal for much of west-central Texas. After some rainfall on Nov. 3, the overall weather pattern for November was marked by extended periods of dry weather, with occasional dry cold frontal passages. Record warm temperatures occurred On Nov. 15-16. New record highs were set at San Angelo on the 15th (86 degrees) and the 16th (87 degrees). At Abilene, a new record high was set on the 15th (86 degrees).

December was noted by record warmth. The average temperature for December was the warmest on record at Abilene and San Angelo. Abilene set a new record for its warmest high temperature (90 degrees on Dec. 26) and warmest low temperature (64 degrees on Dec. 15) for the month of December. During the month, numerous new daily record high temperatures, and a few record warm low temperatures, were set at Abilene and San Angelo. In addition, a new record was set for the highest number of days in December with highs 80 degrees or above, at Abilene (10 days) and San Angelo (10 days).

[Links to Individual Monthly Weather and Climate Summaries for 2021](#)